

<b>CHANGE REQUEST, PAGE 1</b>					1. DATE (YYMMDD) 030825			
							3. DLA ADDRESS: AKZ	
4. ORIGINATOR		b. ADDRESS (Street, City, State, Zip Code) P.O. Box 2074, Warren, Mi 48090-2074			5. CLASS OF ECP I			
a. TYPED NAME (First, Mi, Last) General Dynamics Land Systems, Inc.					6. JUST CODE D		7. PRIORITY R	
8. ECP DESIGNATION					9. BASELINE AFFECTED			
a. MODEL / TYPE SEE FORM 1603		b. CAGE CODE 01417		c. SYSTEM DESIGNATION		<input type="checkbox"/> FUNCTIONAL <input type="checkbox"/> ALLOCATED <input checked="" type="checkbox"/> PRODUCT		
d. ECP NO. GDMY2026			e. TYPE F		f. REV		10. OTHER SYS. / CONFIG. ITEMS AFFECTED <input type="checkbox"/> YES <input type="checkbox"/> NO	
11. SPECIFICATIONS AFFECTED					12. DRAWINGS AFFECTED			
<input checked="" type="checkbox"/>	CAGE Code	Specification/Document No.	Rev.	SCN	CAGE Code	Number	Rev.	NOR
a. SYSTEM								
b. DEVELOPMENT		SEE FORM 1603				SEE INCLOSURE LIST		
c. PRODUCT								
13. TITLE OF CHANGE CORRECT DC TO DC CONVERTER SPECIFICATION								
14. CONTRACT NO. AND LINE ITEM								
SEE CONT. SHEET								
16. CONFIGURATION ITEM NOMENCLATURE SEE FORM 1603							17. IN PRODUCTION <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
18. ALL LOWER LEVEL ITEMS AFFECTED								
a. NOMENCLATURE SEE FORM 1603			b. PART NO. SEE FORM 1603			c. NSN		
19. DESCRIPTION OF CHANGE RELAX THE STATUS SIGNAL RESPONSE TIME REQUIREMENT IN THE PRODUCT FABRICATION SPECIFICATION FOR THE DC/DC CONVERTER USED IN THE AIM, AND OPTIONAL IN THE H/TRSM AND HPDU.  SOURCE: GDMYW460,								
20. NEED FOR CHANGE THE RESPONSE TIME IN THE SPECIFICATION IS OVERLY STRINGENT AND COULD RESULT IN THE FAILURE OF FUNCTIONAL HARDWARE. A CONTROL TEST FAILURE ON ASSEMBLIES FABRICATED CONTAINING A NEW SUPPLIER'S SUBCOMPONENTS COULD NOT MEET THE EXISTING RESPONSE TIME REQUIREMENT. SUBSEQUENT INVESTIGATION REVEALED THAT THE REQUIREMENT COULD BE RELAXED.					21. PRODUCTION EFFECTIVITY BY SERIAL NUMBER			
					FUTURE HAB DOMESTIC LH40009 FUTURE KUWAIT KUWAIT LK219 FUTURE SAUDI SAUDI L8316 DAAE07-01-G-N001/0003 SEP LA23001 SEP RETROFIT SEP_RETR LA23201U			
					FOR ADDITIONAL INFO SEE EFFECTIVITY WORKSHEET			
					22. EFFECT ON PRODUCTION DELIVERY SCHEDULE 031001			
23. RETROFIT								
a. RECOMMENDED ITEM EFFECTIVITY NA					c. SHIP/VEHICLE CLASS AFFECTED NA			
b. ESTIMATED KIT DELIVERY SCHEDULE NA					d. LOCATIONS OR SHIP/VEHICLE NUMBERS AFFECTED NA			
24. ESTIMATED COST/SAVINGS UNDER CONTRACT					25. ESTIMATED NET TOTAL COSTS/SAVINGS			
26a. SUBMITTING ACTIVITY AUTHORIZED SIGNATURE D D Sharrock 030923					b. TITLE: GDLS CONFIGURATION MGMT			
27. APPROVAL/DISAPPROVAL								
a. CLASS I <input checked="" type="checkbox"/> APPROVAL <input type="checkbox"/> DISAPPROVAL			b. CLASS II <input type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED					
GDLS Configuration Management					e. SIGNATURE D D Sharrock		f. DATE (YYMMDD) 030923	
					i. SIGNATURE		j. DATE (YYMMDD)	

<b>ENGINEERING CHANGE PROPOSAL, PAGE 1 CONTINUATION SHEET</b>				DATE(YMMDD) 030825		PROCURING ACTIVITY NO.			
1. ORIGINATOR NAME AND ADDRESS  General Dynamics Land Systems, Inc.  P.O. Box 2074, Warren, Mi 48090-2074				2. CLASS OF ECP I					
				3. JUST. CODE D		4. PRIORITY R			
5. ECP DESIGNATION									
a. MODEL / TYPE SEE FORM 1603		b. CAGE CODE 01417						c. SYSTEM DESIGNATION	
d. ECP NO. GDMY2026		e. TYPE F	f. REV					g. AMEND	

Page 3 Block 46 - After

(continued)

THIS CHANGE MUST BE ACCOMPLISHED AFTER: ECP GDMY1238 WHICH RELEASES REVISION D OF THE SPECIFICATION.

NOTE: THIS CR CLOSES WAIVER GDMYW460.

**ENGINEERING CHANGE PROPOSAL (ECP), PAGE 2**Form Approved  
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget and Budget Paperwork Reduction Project (074-4-41001), Washington DC 29543.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT/PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THE COMPLETED DD FORM 1692.

**ECP NUMBER**

GDMY2026

**EFFECTS ON FUNCTIONAL/ALLOCATED CONFIGURATION DOCUMENTATION****28. OTHER SYSTEMS AFFECTED****29. OTHER CONTRACTORS/ACTIVITIES AFFECTED****30. CONFIGURATION ITEMS AFFECTED****31. EFFECTS ON PERFORMANCE ALLOCATIONS AND INTERFACES IN SYSTEM SPECIFICATION**

**32. EFFECTS ON EMPLOYMENT, INTEGRATED LOGISTICS SUPPORT, TRAINING, OPERATIONAL EFFECTIVENESS OR SOFTWARE FOR LOGISTIC IMPACTS SEE ENCLOSURE A. NO AFFECT ON VEHICLE OPERABILITY.**

**33. EFFECTS ON CONFIGURATION ITEM SPECIFICATIONS****34. DEVELOPMENTAL REQUIREMENTS AND STATUS****35. TRADE-OFFS AND ALTERNATIVE SOLUTIONS****36. DATE BY WHICH CONTRACTUAL AUTHORITY IS NEEDED (YYMMDD)**

031001

ECP  
NO GDMY2026

INC SHEET 1 of 1

EDITION OF 13 OCT 66 IS OBSOLETE

## ENGINEERING CHANGE PROPOSAL (ECP), PAGE 3

Form Approved  
OMB No. 0704-0188

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ECP NUMBER

GDMY2026

## EFFECTS ON PRODUCT CONFIGURATION IDENTIFICATION, LOGISTICS AND OPERATIONS

(X)	FACTOR	ENCL.	PAR.	(X)	FACTOR	ENCL.	PAR.
	37. EFFECT ON PRODUCT CONFIGURATION IDENTIFICATION OR CONTRACT				39. EFFECT ON OPERATIONAL EMPLOYMENT		
	a. performance				a. safety		
	b. weight-balance stability (aircraft)				b. survivability		
	c. weight-moment (other equipment)				c. reliability		
	d. compl. technical data				d. maintainability		
	e. nomenclature				e. service life		
					f. operating procedures		
	38. EFFECT ON INTEGRATED LOGISTICS SUPPORT (ILS) ELEMENTS				g. electromagnetic interference		
	a. ils plans				h. activation schedule		
X	b. maintenance concept, plans and procedures	A			i. critical single point failure items		
X	c. logistics support analyses	A			j. interoperability		
	d. interim support programs						
X	e. spares and repair parts	A			40. OTHER CONSIDERATIONS		
X	f. tech manuals / programming tapes	A			a. interface		
	g. facilities				b. other affected equipment / gfe / gfs		
X	h. support equipment	A			c. physical constants		
X	i. operator training	A			d. computer programs and resources		
	j. operator training equipment				e. rework of other equipment		
X	k. maintenance training	A			f. system test procedures		
	l. maintenance training equipment				g. warranty / guarantee		
	m. contract maintenance				h. parts control		
X	n. packaging, handling, storage, transportability	A					
X	o. provisioning	A					

## 41. ALTERNATE SOLUTIONS

## 42. DEVELOPMENTAL STATUS

## 43. RECOMMENDATIONS FOR RETROFIT

RETROFIT NOT RECOMMENDED.

HARDWARE CONFORMS

## 44. WORK-HOURS PER UNIT TO INSTALL RETROFIT KITS

a. organization	b. intermediate	c. depot	d. other
NA	NA	NA	NA

## 45. WORK-HOURS TO CONDUCT SYSTEM TESTS AFTER RETROFIT

NA

## 46. THIS CHANGE MUST BE ACCOMPLISHED SEE PG 1 CONT SHT

<input type="checkbox"/> BEFORE	<input type="checkbox"/> WITH	<input checked="" type="checkbox"/> AFTER THE FOLLOWING CHANGES
---------------------------------	-------------------------------	---

## 47. IS CONTRACTOR FIELD SERVICE ENGINEERING REQUIRED ?

<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
------------------------------	--

## 48. OUT OF SERVICE TIME

NA

## 49. EFFECT OF THIS ECP AND PREVIOUSLY APPROVED ECPS ON ITEM

## 50. DATE CONTRACTUAL AUTHORITY NEEDED FOR

a. PRODUCTION 031001

b. RETROFIT

Land Systems, Inc.

## LOGISTICS IMPACT SHEET 1

TITLE CORRECT DC TO DC CONVERTER SPECIFICATION		PRIORITY		ECP <input type="checkbox"/> RFD <input type="checkbox"/> RFW <input type="checkbox"/> OTHER		SOURCE DOC	
		R				GDMY2026	
		CLASS				INITIAL	ACTION
		I				<input checked="" type="checkbox"/>	<input type="checkbox"/>
VEHICLES AFFECTED							
<input checked="" type="checkbox"/> HAB	<input type="checkbox"/> MCV-B	<input type="checkbox"/> ICV	<input checked="" type="checkbox"/> ASEP	<input type="checkbox"/> M1	<input checked="" type="checkbox"/> KSA-M1A2		
<input type="checkbox"/> M1A1-D	<input type="checkbox"/> MEV	<input type="checkbox"/> MGS	<input checked="" type="checkbox"/> M1A2	<input type="checkbox"/> IPM1	<input checked="" type="checkbox"/> KUWAIT-M1A2		
<input type="checkbox"/> MCV-A	<input type="checkbox"/> NBC-RV	<input type="checkbox"/> M60/M48/M728	<input type="checkbox"/> FOX	<input type="checkbox"/> M1A1	<input type="checkbox"/> MIA1-E		
LOGISTICS IMPACT							
		Y	N	INIT	FINAL	NATURE OF IMPACT	
MAINTENANCE ALLOCATION CHART		<input type="checkbox"/>	<input checked="" type="checkbox"/>		JJ		
TRAINING		<input type="checkbox"/>	<input checked="" type="checkbox"/>		JJ		
SPECIAL TOOLS		<input type="checkbox"/>	<input checked="" type="checkbox"/>		JJ		
SUB-CONTRACTS		<input type="checkbox"/>	<input checked="" type="checkbox"/>		JJ		
PROVISIONING		<input type="checkbox"/>	<input checked="" type="checkbox"/>		JJ		
PACKAGING, HANDLING, TRANS.		<input type="checkbox"/>	<input checked="" type="checkbox"/>		JJ		
PARTS PRICING		<input type="checkbox"/>	<input checked="" type="checkbox"/>		JJ		
TEST EQUIPMENT		<input type="checkbox"/>	<input checked="" type="checkbox"/>		JJ	IF YES	
						<input type="checkbox"/> DSESTS <input type="checkbox"/> DMPE/ <input type="checkbox"/> HARDWARE <input type="checkbox"/> SOFTWARE	
						<input type="checkbox"/> ED <input type="checkbox"/> IETM <input type="checkbox"/> HARDWARE <input type="checkbox"/> SOFTWARE	
						PER J.M.	
TECHNICAL MANUALS							
					MANUAL	TEXT	ART
OPERATOR PMCS		<input type="checkbox"/>	<input checked="" type="checkbox"/>		JJ	UPDATE	
TROUBLESHOOTING		<input type="checkbox"/>	<input checked="" type="checkbox"/>		JJ		
MAINTENANCE		<input type="checkbox"/>	<input checked="" type="checkbox"/>		JJ		
MAINT SCHEDULED		<input type="checkbox"/>	<input checked="" type="checkbox"/>		JJ		
UNSCHEDULED		<input type="checkbox"/>	<input checked="" type="checkbox"/>		JJ		
TROUBLESHOOTING		<input type="checkbox"/>	<input checked="" type="checkbox"/>		JJ		
RPSTL		<input type="checkbox"/>	<input checked="" type="checkbox"/>		JJ		
DMWR		<input type="checkbox"/>	<input checked="" type="checkbox"/>		JJ		
SCHEMATICS		<input type="checkbox"/>	<input checked="" type="checkbox"/>		JJ		
REMARKS							
MULTIPLE CONFIGURATION REQUIREMENT :							
RETROFIT	IN LINE	WLC Log Engineering		INITIAL SIGN		DATE	
N	D.			J N Johnson		030922	
	L.	(Print Name)		J N Johnson		DATE	
				FINAL SIGN		030922	

# ENGINEERING CHANGE PROPOSAL / CHANGE REQUEST EFFECTIVITY WORKSHEET

ECP NO. GDMY2026**ENGINEERING RESPONSIBILITIES****NOTE : ONLY REQUIRED FOR PRODUCTION ECPS and CRS**

- CURRENT HARDWARE CONFORMS TO THE TDP
- CURRENT HARDWARE CONFORMS TO THE INTENT OF THIS DOCUMENT
- DOCUMENTATION CHANGE ONLY
- OLD MATERIAL RECOMMENDATION

YES NO N/A

- SCRAP
- REWORK - VEHICLE
- REWORK - COMPONENT / ASSEMBLY
- USE AS IS

- QUALIFICATION TESTING IMPACT

- RFD / RFW OPEN AGAINST CHANGE ? GDMYW460

- PMO COORDINATION WITH \_\_\_\_\_

PHONE NO. \_\_\_\_\_

DATE \_\_\_\_\_

ENGINEERING REPRESENTATIVE

AVERY SINKOFFPHONE NO. 586.825.7401

DATE \_\_\_\_\_

**QUALITY TEST RESPONSIBILITIES**

- CONTROL TEST IMPACT
- F.A.T. TEST / RETEST REQUIRED
- FACTS TEST EQUIPMENT IMPACT

YES ☐NO ☒IF YES : INCREASE ☐DECREASE ☐YES ☐NO ☒IF YES : FULL ☐PARTIAL ☐YES ☐NO ☒INTERNAL ☐EXTERNAL ☐QUALITY TEST REP. T. RILEYQUALITY FACTS REP. MCCARTHY J.**LOGISTICS RESPONSIBILITIES**

- SPARES IMPACT

YES ☐NO ☒

- CONTRACT / DEL. ORDER AFFECTED

LOGISTICS REPRESENTATIVE

R. JOHNPHONE NO. 825-8706DATE 030917**MANUFACTURING / MATERIALS RESPONSIBILITIES**

END ITEM	PROGRAM	FACILITY	EFFECT	EFFECT DATE	CONTRACT NO.
HAB	DOMESTIC		LH40009	030901	FUTURE HAB
M1A2	KUWAIT		LK219		FUTURE KUWAIT
M1A2	SAUDI		LS316		FUTURE SAUDI
M1A2	SEP		LA23001	030801	DAAE07-01-G-N001/0003
M1A2	SEP_RETR		LA23201U	031001	SEP RETROFIT

**FACILITIES AFFECTED**TALLA**REWORK STATUS**

WHO WILL PERFORM REWORK?

PLANT

YES ☐NO ☒NUMBER OF PIECES 0

VENDOR

YES ☐NO ☒NUMBER OF PIECES 0**EFFECTIVITY CONCURRENCE**

ECAR REQUIRED ?

YES ☐NO ☒

EFFECTIVITY ESTABLISHED BY :

MATERIALS ☐PROGRAM OFFICE ☐LOGISTICS ☒QUALITY ☐MAT'L REP. C A Sanders

030911

ESTABLISHED EFFECTIVITIES REQUIRE CHANGE AUTHORIZATION BY : 031001**REMARKS:**

<b>SPECIFICATION CHANGE NOTICE (SCN)</b>			1. DATE (YYMMDD)  030829	Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project(0704-0188), Washington, DC 20503. PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT/PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THIS FORM.				2. PROCURING ACTIVITY NO.	
				3. DLA ADDRESS  AKZ	
4. ORIGINATOR  a. TYPED NAME (First, Middle Initial, Last) General Dynamics Land Systems, Inc.  b. ADDRESS (Street, City, State, Zip Code) P.O. Box 2074 Warren, Mi 48090-2074			5. SCN TYPE  <input checked="" type="checkbox"/> PROPOSED <input type="checkbox"/> APPROVED		
			6. CAGE CODE  01417	7. SPEC NO.  SC-SA15152	
			8. CAGE CODE  01417	9. SCN NO.	
10. SYSTEM DESIGNATOR	11. RELATED ECP NO.  GDMY2026	12. CONTRACT NO.  SEE CONT. SHEET	13. CONTRACTUAL AUTHORIZATION "See contract modification authorization"		
14. CONFIGURATION ITEM NOMENCLATURE  REMOTE SWITCHING MODULE,DC/DC CONVERTER			15. EFFECTIVITY  "See form 1692 page 1 block 21"		
This notice informs recipients that the specification identified by the number (and revision letter) shown in item 7 has been changed. The pages changed by this SCN are those furnished herewith and carry the approval date of the related ECP listed in item 11. The pages of the page numbers and dates listed in items 16 and 17, combined with non-listed pages of the original issue of the revision shown in item 7, constitute the current approved version of this specification.					
16. PAGES AFFECTED BY THIS SCN  PAGE(S) a.				TYPE OF CHANGE* b.	APPROVAL DATE (YYMMDD) c.
8, 32				S	
17. SUMMARY OF PREVIOUSLY CHANGED PAGES				DATE SUBMITTED (YYMMDD) d.	APPROVAL DATE (YYMMDD) f.
SCN NO. a.	RELATED ECP NO. b.	PAGE(S) c.	TYPE OF CHANGE* e.	APPROVAL DATE (YYMMDD) f.	
* "S" Indicates supersedes earlier page. "A" Indicates added page "D" Indicates deletion					
18.a. GOVERNMENT ACTIVITY  GDLS Configuration Management		c. SIGNATURE  D D Sharrock		d. DATE SIGNED (YYMMDD)  030923	
b. TYPED NAME (First, Middle Initial, Last)  D D Sharrock					



SC-SA15152D

~~30 March 1999~~

29 AUG 2003

**3.5.1.7. Output voltage ripple and noise.**

With the maximum load applied across the 5 V and  $\pm 15$  V outputs, the total ripple and noise voltage across the outputs shall not exceed those specified by Table VIII. The ripple voltage shall be the alternating current (AC) voltage component across each output and its return, with a frequency equal to the fundamental switching frequency of the power supply. The noise voltage shall be defined as the AC voltage component across each output and its return with a frequency which is greater than the fundamental switching frequency of the power supply, and shall contain harmonic(s) of fundamental switching frequency and non-harmonic frequency components of the fundamental switching frequency of the power supply. (see 4.8.2.6.2)

Table VIII. Ripple and Noise Outputs

Type	+5 Vdc Output	$\pm 15$ Vdc Outputs
I	250 mV <sub>pp</sub>	550 mV <sub>pp</sub> and 22 mV <sub>RMS</sub>
II	250 mV <sub>pp</sub> and 25 mV <sub>RMS</sub>	550 mV <sub>pp</sub> and 22 mV <sub>RMS</sub>

Note: pp = peak-to-peak, RMS = Root Mean Square.

**3.5.1.8. Status.**

The STATUS signal at pin 7 shall be referenced to the 5 Vdc return (pin 9). A logic "1" signal shall be a voltage level between 2.4 and 5.25 Vdc [including noise and ripple] with a maximum source current of 100 microamperes. The STATUS signal shall have a rise and fall time as specified by Table IX. The rise time is defined as the transition time from 0.6 Vdc to 2.4 Vdc. The STATUS signal line shall be logic "1" at pins 7 (+) and 9 (rtn) when the assembly's output voltages are in the ranges specified in 3.5.1.5 and 3.5.1.6. The STATUS signal line shall be logic "0" at pins 7 (+) and 9 (rtn) when the assembly's output voltage goes into an overvoltage per 3.5.1.11, an undervoltage per 3.5.1.12, or has a short placed across any output to return, separately or in combination per 3.5.1.13. The response time of the status signal shall be 1 ms or less ( $t_{\text{response}} < 1$  ms). The response time of the STATUS signal shall be defined as the time interval between a fault (overvoltage, undervoltage, short circuit, etc.) and the STATUS signal falling to a logic "0" (0.0 V to 0.6V) (see 4.8.2.8).

Table IX. Status Signal Response Time

Type	Input Voltage	Rise/Fall Time (maximum)
I & II	18 to 30 Vdc [inclusive]	9030 $\mu$ sec
II	14 to 18 Vdc	150 $\mu$ sec
	30 to 35 Vdc	

Note: Rise/Fall Time =  $\frac{t_{\text{rise}}}{t_{\text{fall}}}$

SC-SA15152D

~~30 March 1999~~  
29 AUG 2003

across pins 4 and 3 using a measuring device with a minimum bandwidth of 20 MHz. Verify that the measurement is less than or equal to the values specified in 3.5.1.7 for each respective voltage. Measure the RMS ripple and noise voltage across pins 2 and 9 (for Type II only), across pins 8 and 3, and across pins 4 and 3 using a measuring device with a minimum bandwidth of at least three (3) times (3X) the fundamental frequency of the assembly.

[For Type I only] Verify that each measurement is less than or equal to 22 mV<sub>RMS</sub>.

[For Type II only] Verify that each measurement is less than or equal to 25 mV<sub>RMS</sub> for the +5 Vdc output only and less than or equal to 22 mV<sub>RMS</sub> for the +15 Vdc and -15 Vdc outputs.

**Note:** All verifications shall be performed using a measuring device with 20 MHz bandwidth and all voltage limits include ripple and noise as specified in 3.5.1.8.

#### 4.8.2.8. Status.

##### 4.8.2.8.1. Qualification, first article, control tests.

###### 4.8.2.8.1.1. For Types I and II.

Apply a load across pins 2 and 9 capable of providing  $3.0 \pm 0.3$  A of load current. Apply loads across pins 4 and 3 and across pins 8 and 3 capable of providing  $150 \pm 15$  mA of load current each. Place a  $24 \text{ k}\Omega \pm 1$  percent resistor across pins 7 and 9. Apply the low range of the input voltage as specified in 4.8.2.1 for Type I or Type II, as applicable. Verify that the voltage between pins 7 and 9 is between 2.4 and 5.25 Vdc. Remove the  $24 \text{ k}\Omega$  resistor across pins 7 and 9 and place a  $2.3 \text{ k}\Omega \pm 1$  percent resistor from pin 7 to a  $5.00 \pm 0.25$  Vdc external source referenced to pin 9. Place a jumper wire (10  $\Omega$  or less) between pins 2 and 9 and verify that the voltage across pins 7 and 9 is between 0.0 and 0.6 volts. Verify that the fall time from logic "1" and logic "0" is 9030  $\mu\text{s}$ . Remove the  $2.3 \text{ k}\Omega$  resistor and place a  $24 \text{ k}\Omega \pm 1$  percent resistor across pins 7 and 9. Remove the jumper and verify that the voltage between pins 7 and 9 is between 2.40 and 5.25 Vdc and verify that the rise time from logic "0" and logic "1" is 9030  $\mu\text{s}$  or less. Remove the  $24 \text{ k}\Omega$  resistor across pins 7 and 9 and place a  $2.3 \text{ k}\Omega \pm 1$  percent resistor from pin 7 to a  $5.0 \pm 0.25$  Vdc external source referenced to pin 9.

Place a jumper wire (10  $\Omega$  or less) between pins 4 and 3. Verify that the voltage between pins 7 and 9 is between 0.0 and 0.6 volts. Verify that the fall time from logic "1" to logic "0" is 9030  $\mu\text{s}$  or less. Remove the  $2.3 \text{ k}\Omega$  resistor and place a  $24 \text{ k}\Omega \pm 1$  percent resistor across pins 7 and 9. Remove the jumper and verify the voltage between pins 7 and 9 is between 2.4 and 5.25 Vdc and the rise time from logic "0" to logic "1" is 9030  $\mu\text{s}$  or less. Remove the  $24 \text{ k}\Omega$  resistor across pins 7 and 9 and place a  $2.3 \text{ k}\Omega \pm 1$  percent resistor from pin 7 to a  $5.00 \pm 0.25$  Vdc external source referenced to pin 9. Place a jumper wire (10  $\Omega$  or less) between pins 8 and 3 and verify that the voltage between pins 7 and 9 is between 0.0 and 0.6 Vdc. Verify that the fall time from logic "1" to logic "0" is 9030  $\mu\text{s}$  or less. Remove the  $2.3 \text{ k}\Omega$  resistor and place a  $24 \text{ k}\Omega \pm 1$  percent resistor across pins 7 and 9. Remove the jumper and verify the voltage between pins 7 and 9 is between 2.40 and 5.25 Vdc and verify that the rise time from logic "0" to logic "1" is 9030  $\mu\text{s}$  or less. Repeat the entire test with the high range of the input voltage as specified in 4.8.2.1 for Type I or Type II, as applicable.

The overvoltage requirement of 3.5.1.8 shall be verified during the tests of 4.8.2.11. The undervoltage requirement of 3.5.1.8 shall be verified during the tests of 4.8.2.12.

**Note:** All verifications shall be performed using a measuring device with 20 MHz bandwidth and all voltage limits include ripple and noise as specified in 3.5.1.8.

GENERAL DYNAMICS  
LAND SYSTEMS DIVISION

# REVIEW RECORD

ECP NO. GDMY2026

NUMBER

PRIOR DATE \_\_\_\_\_ DATE 030903 AMEND \_\_\_\_\_ REVISION 0

ORIGINATING LOCATION STERLING HEIGHTS CENTER VEHICLE SERIES ALL M1A2, HAB

ENGINEERING		J - Mc Carthy		030917	L D Saunders	030918
S T Nguyen	030908	P D Mahaffey		030918		
G F Chmielewski	030908					
J Hall, Jr.	030909					
M S Bayhan	030922					
					R C Fox	030911
MATERIAL ENG						
				B E Dziurda		030910
SYSTEMS ENG		SCN INCLUDED		EMI/NUC.HDN		
	M Nikollaj	030829			E A Lewis	030910
PRODUCT ASSURANCE				RAM-D CODE		A1, B5
						L A Crawford
						030922
PRODUCIBILITY						
				D G Hines		030904
QUALITY ASSURANCE		QAIE	K E Verble	030919	FINAL	
FACTS	J - Mc Carthy	030917	PQE			
TEST			QE			
HARDWARE VER.				QUALITY ENG.		
						T P Riley
						030917
LOGISTIC SUPPORT				FINAL		
						J N Johnson
						030922
MFG CM				MATL PROCUREMENT		
						C A Sanders
						030911
MFG LIAISON				MATERIAL FINANCE		NO COST
						D F Killion
						030917
ENG DOC CONTROL				MFG PRODUCIBILITY		NO COST
		A G Gavula	030916			D J Kasper
						030922
CONFIGURATION MGT				PROGRAM MGR.		
		J C Masching	030923			D D Sharrock
						030923
COMMENTS		CCB _____		DATE _____		APPROVED <input type="checkbox"/> REJECTED <input type="checkbox"/>